



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D5039-5

Job Sheet 178523



Part No: D5039-5

Job Qty: 12 ea

Part Name: Half Link



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 6/1/18

Job Tracking No:

Due Date: 6/15/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG REV B IPP REV:A 15.09.23 NEW ISSUE DD VERF:JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Purchasing	12 pcs		6/15/18	0.00	0.00	Purchasing		At 18/06/08
110	Packaging	12 pcs		6/15/18	0.00	0.00	Packaging2		At 18/06/08
120	QC	12 pcs		6/15/18	0.00	0.00	QC6		EB
130	Packaging	12 pcs		6/15/18	0.00	0.00	Packaging3-2	ST133	18-6-13
140	QC21-SA	12 Ea		6/15/18	0.00	0.00	QC21		21 18-06-14

Part Op 110 - Receive & Inspect for Damage & Mat'l Certs

Descriptions: 120 - QC6- All purchased or subcontracted products

130 - Identify as per dwg & Stock Location: _____

140 - QC21- Final Inspection - Work Order Release

P/O: 040081 9-89
JUN 01 2018

DAS
13
9-89

X12

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
6264K72	Half Link	12 pcs (1 ea)	100-Purchasing	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Purchasing	6264K72	12	0	0

Part Specifications

Specifications could not be found.



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL: 1 613 832-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S079336



Part: D5039-5

Job No: 178523

Serial No/Batch: S079336

Revision:

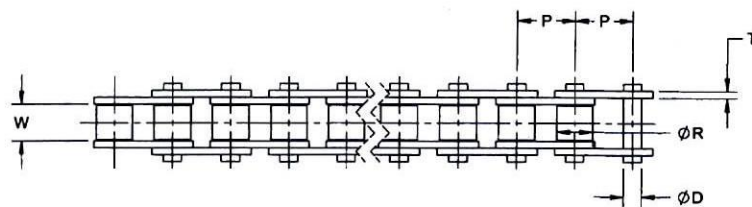
Inspector:

Exp Date: 06/08/2018

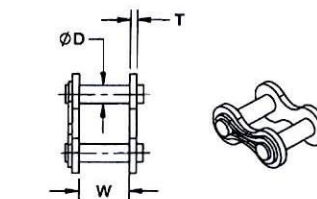
Instructions:

Date: 06/08/18

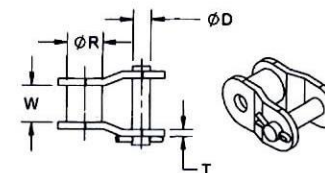
SPECIFICATION CONTROL DRAWING



D5039-1 CHAIN



D5039-3 MASTER LINK



D5039-5 HALF LINK

DART P/N	DESCRIPTION	MATERIAL	WEIGHT (LB/FT)	MANUFACTURER	MANUFACTURER P/N	VENDOR	VENDOR P/N	ALTERNATE VENDOR	ALTERNATE VENDOR P/N	P	W	T	D	R
D5039-1	CHAIN	304 SS	0.43	TSUBAKI	A140004	ACKLANDS GRAINGER	6L076	MCMaster CARR	6264K85	0.50	0.31	0.06	0.16	0.31
D5039-3	MASTER LINK	304 SS	0.43	TSUBAKI	RS40-SS-1	ACKLANDS GRAINGER	6L094	MCMaster CARR	6264K52	0.50	0.43	0.06	0.16	N/A
D5039-5	HALF LINK	304 SS	0.43	-	-	-	-	MCMaster CARR	6264K72	0.50	0.31	0.06	0.16	0.31

D5039-X CHAIN

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 178523 MJS
18-0601

- NOTES:
1) MATERIAL: SEE TABLE
2) FINISH: N/A
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY PER QSI 044 6.7
7) WEIGHT: SEE TABLE

RELEASED
2015-09-21
LEN 15-552

B	ADD ALTERNATE VENDOR: ZN B3-1, ADD -5; ZNB8-1, C2-1	VS	15.03.04
A	NEW ISSUE	AK	14.01.15
REV.	DESCRIPTION	BY	DATE
DESIGN	AK	DART AEROSPACE USA, INC. KENT, WA	
DRAWN	VS		
CHECKED	AK	DRAWING NO.	REV. B
MFG. APPR.	JLM	D5039	SHEET 1 OF 1
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	CHAIN	NTS
DATE	15.03.04	COPYRIGHT © 2014 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE, OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table> <tr> <td>Skid-tube ☐</td> <td>Cross tube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Date :	Step #:	QTY Effective :	MRB (QSI042) Approval
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Description Work Order Deviation	Disposition	Completed By
		Lead hand / Supervisor Approval Verification
		QC / QA Coordinator Approval

Root Cause <table> <tr><td>Environment</td><td>☐</td><td>No Re-verification</td><td>☐</td></tr> <tr><td>Design</td><td>☐</td><td>Operator</td><td>☐</td></tr> <tr><td>Doc/Data</td><td>☐</td><td>Offset/Setup</td><td>☐</td></tr> <tr><td>Equip/Tooling</td><td>☐</td><td>Supplier</td><td>☐</td></tr> <tr><td>Handling/Pre</td><td>☐</td><td>Training</td><td>☐</td></tr> <tr><td>Material</td><td>☐</td><td>Use for Testing</td><td>☐</td></tr> <tr><td>Internal Transport</td><td>☐</td><td>Poor Information</td><td>☐</td></tr> <tr><td>Tribal Knowledge</td><td>☐</td><td>Rushing</td><td>☐</td></tr> <tr><td>LOA</td><td>☐</td><td>Product Improvement</td><td>☐</td></tr> <tr><td>Substation</td><td>☐</td><td>Process Improvement</td><td>☐</td></tr> <tr><td>Past Expiry Date</td><td>☐</td><td>Manufacturing Process</td><td>☐</td></tr> <tr><td>Misidentified</td><td>☐</td><td>Past Due</td><td>☐</td></tr> </table>		Environment	☐	No Re-verification	☐	Design	☐	Operator	☐	Doc/Data	☐	Offset/Setup	☐	Equip/Tooling	☐	Supplier	☐	Handling/Pre	☐	Training	☐	Material	☐	Use for Testing	☐	Internal Transport	☐	Poor Information	☐	Tribal Knowledge	☐	Rushing	☐	LOA	☐	Product Improvement	☐	Substation	☐	Process Improvement	☐	Past Expiry Date	☐	Manufacturing Process	☐	Misidentified	☐	Past Due	☐	FAULT CATEGORY <table> <tr><td>☐</td><td>Pressure/Forced</td><td>☐</td><td>Temperature/Cure</td><td>☐</td><td>Power Loss/Surge</td><td>☐</td><td>Positioned Wrong</td></tr> <tr><td>☐</td><td>Bending</td><td>☐</td><td>Set-up</td><td>☐</td><td>Folio/Program</td><td>☐</td><td>Outside Dimensions</td></tr> <tr><td>☐</td><td>Centre Not Concentric</td><td>☐</td><td>BOM/Route</td><td>☐</td><td>Grain</td><td>☐</td><td>Over/Under tolerance</td></tr> <tr><td>☐</td><td>Cracks</td><td>☐</td><td>Broken/Damage/Defect</td><td>☐</td><td>Weld</td><td>☐</td><td>Part Incorrect</td></tr> <tr><td>☐</td><td>Crimp/Kink/Ripple/Wave</td><td>☐</td><td>Inspection Incomplete/Unqualified</td><td>☐</td><td>Wrong Stock Pulled</td><td>☐</td><td>Part Lost/Missing</td></tr> <tr><td>☐</td><td>Cuffs</td><td>☐</td><td>Contamination</td><td>☐</td><td>Out of Sequence</td><td>☐</td><td>Part Moved</td></tr> <tr><td>☐</td><td>Crushing</td><td>☐</td><td>Countersink</td><td>☐</td><td>Off-set</td><td>☐</td><td>Drawing</td></tr> <tr><td>☐</td><td>Heat Treat</td><td>☐</td><td>Cut Too Short</td><td>☐</td><td>Mislabeled</td><td>☐</td><td>Finish</td></tr> <tr><td>☐</td><td>Wave/Twist in Tube</td><td>☐</td><td>Instructions Incomplete/Unclear</td><td>☐</td><td>Fit/Function</td><td>☐</td><td>Misread</td></tr> <tr><td>☐</td><td>Marks/Chatter</td><td>☐</td><td>Drill Holes</td><td>☐</td><td>Misaligned/off center</td><td>☐</td><td>Turning Sequence</td></tr> </table>				☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
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Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO040081**

Supplier: MCM001-VU
McMaster-Carr Supply Co,
P.O. Box 7690
Chicago, IL 60680-7690 USA
Phone: 330 995 5500
Fax: 330 995 9600

PO No: PO040081

PO Date: 6/1/18

Due Date: 6/5/18

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Lavoie, Chantal
clavoie@dartaero.com

E-MAILED
JUN 01 2018

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground

Pymt Terms: 2% 10 Net 30

Freight Terms:

Special Comments:

Items

Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	9263K642	10/pk	O-Ring receive ea	Firmed	6/5/18	50 Ea	0 Ea	50 Ea	\$0.574/Ea	\$28.70
2	188-FSCS-1032-5/8	92210A303 100/per pk	Screw	Firmed	6/5/18	300 Ea	0 Ea	300 Ea	\$0.0761/Ea	\$22.83
3	MT-BRASS-C360-R0.500	2572T38 6 FT	Brass C360 Round Bar 0.500"	Firmed	6/5/18	6 ft	0 ft	6 ft	\$9.158333/ft	\$54.95
4	92198A111	25/pk	Bolt receive ea	Firmed	6/5/18	25 Ea	0 Ea	25 Ea	\$0.2124/Ea	\$5.31
5	91525A120		washer D3456-1 : AS PER DWG D3456 REV.A	Firmed	6/5/18	300 pcs	0 pcs	300 pcs	\$0.232/pcs	\$69.60

Line Item Note WO 178426

6	6264K72		Half Link receive pcs	Firmed	6/5/18	12 Ea	0 Ea	12 Ea	\$7.80/Ea	\$93.60
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Line Item Note w/o 178523

Grand Total: \$274.99

Order Notes



200 Aurora Industrial Pkwy
Aurora OH 44202-8087
330-995-5500
cle.sales@mcmaster.com

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury ON K6A 1K7
Canada

Purchase Order
PO040081

Order Placed By
Chantal Lavoie

McMaster-Carr Number
4395090-02

Page 1 of 1

06/01/2018

Line	Product	Ordered	Shipped
1	9263K642 Chemical-Resistant Viton Fluoroelastomer O-Ring, 1.9 mm Wide, 7.8 mm ID, Packs of 10	5 Packs	5
2	92210A303 18-8 Stainless Steel Hex Drive Flat Head Screw, 10-32 Thread Size, 5/8" Long, Packs of 100	3 Packs	3
4	92198A111 18-8 Stainless Steel Hex Head Screw, 1/4"-28 Thread Size, 1-1/2" Long, Partially Threaded, Packs of 25	1 Pack	1
5	91525A120 316 Stainless Steel Washer, Oversized, 1/4" Screw Size, 0.281" ID, 1" OD, Packs of 25	12 Packs	12
6	6264K72 Adding-and-Connecting Link for ANSI Number 40-SS Single Strand Corrosion-Resistant Roller Chain	12 Each	12